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- A system operating in a computer network having a service, comprising:
 - (a) a server apparatus including
 - (i) a synchronization agent for determining modification of a server workspace element and generating server results; and
 - (ii) a control engine for providing control of the service;
 - (b) a client apparatus including
 - (i) a communications engine for communicating with the server and for receiving the server results from the server; and
 - (ii) means for determining modification of a client workspace element, for generating client results, for comparing the client results with the server results, and for performing a responsive synchronization action; and
- (c) a request-servicing engine for communicating with the control engine and for controlling the service.
- 2. The system of claim 1, wherein
 the server workspace element includes server version information; and
 the synchronization agent examines the server version information against a last
 synchronization signature to determine whether the server workspace element has been
 modified.
- 3. The system of claim 2, wherein the synchronization agent updates the server version information.

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- 4. The system of claim 1, wherein the server further includes a configuration engine for delivering configuration data which configures the service.
- 5 5. The system of claim 1, wherein the server further includes a configuration engine for delivering configuration data which configures the control engine.
 - 6. The system of claim 1, wherein the client workspace element includes client version information and the means for determining compares the client version information against a last synchronization signature to determine whether the client workspace element has been modified.
 - 7. The system of claim 6, wherein the means for determining updates the client version information.
 - 8. The system of claim 1, wherein the server uses a global format to store the server workspace element, the client uses a client format to store the client workspace element and the server further includes a global translator for translating between the client format and the global format.
 - 9. The system of claim 1, wherein the server further includes a security engine for identifying and authenticating a user before enabling access from a remote client.



- 10. The system of claim 1, wherein the client is protected by a firewall.
- 11. The system of claim 10, wherein the server further includes a key for enabling communication through the firewall.

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12. The system of claim 1, wherein the client further includes a synchronization-start module for initiating the communications engine to establish a communications channel with the server.

13. The system of claim 1, wherein the responsive synchronization action includes generating a preferred version from the server workspace element and the client workspace element.

- 14. The system of claim 13, wherein the client further includes a synchronization module for examining the content of the server workspace element and of the client workspace element when the means for determining cannot generate a preferred version because a conflict exists.
- 15. The system of claim 1, wherein the control engine includes an applet host engine for transmitting an applet which controls the service to the request-servicing engine and the request-servicing engine includes an applet engine for executing the applet.

- 16. The system of claim 1, further comprising a user interface coupled to the control engine and enabling a user to request access to the service.
- 17. The system of claim 16, wherein the service enables access to the client workspace element.
 - 18. The system of claim 1, wherein the service uses the client workspace element.
 - 19. The system of claim 1, wherein the service uses the server workspace element.
 - 20. The system of claim 1, wherein the service is located on the server.
 - 21. The system of claim 1, wherein the service is located on the client.
- 15 22. The system of claim 1, wherein the computer network includes a computer providing the service.
 - A system capable of providing a service and a version-synchronized workspace element from a requesting client, comprising:
- a storage/medium storing an address pointing to said service;
 - a communications interface for establishing a communications link with the client;

a request-servicing engine coupled to the communications interface for receiving a request for access to said service from the client; and

access-providing means coupled to the storage medium and the client interface for providing access to said service to the client.

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- 24. The system of claim 23, wherein the storage medium further stores an address pointing to the workspace element.
- 25. The system of claim 23, further comprising/a synchronization-start module for initiating the communications interface to establish a communications link.
 - 26. The system of claim 23, wherein the service is located on a remote computer.
 - 27. The system of claim 23, wherein the system includes the service.
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- 28. The system of claim 23/wherein the service is located on the client.
- 29. The system of claim 28, wherein the client is protected by a firewall.
- 30. The system of claim 29, wherein the client further comprises a synchronization-start module for initiating the communications interface to establish a communications link.

- 31. The system of claim 29, further comprising a key to enable access through the firewall.
- 32. The system of claim 23, further comprising a security engine for performing identification and authentication services before providing access to the service to the client.
 - 33. The system of claim 23, wherein the request-servicing engine receives a request from a remote client.
 - 34. The system of claim 33, wherein the remote client receives the request from a user.
- 35. The system of claim 23, wherein the access-providing means delivers an applet which controls the service to the client.
 - 36. The system of claim 35, further comprising an applet host engine.
- 37. The system of claim 23, further comprising synchronization means for synchronizing the workspace element.
 - 38. The system of claim 37, wherein the workspace element includes version information.

- 39. The system of claim 37, further comprising
- a synchronization agent for examining a system workspace element and generating system results; and
- a general-synchronization module for examining a workspace element on the client, for generating client results, for comparing the client results and the system results, and for performing a responsive synchronization response.
- 40. The system of claim 39, wherein the responsive synchronization response includes generating a preferred version.
 - 41. The system of claim 23 wherein the service uses the workspace element.
- 42. A system capable of providing a service and a version-synchronized workspace element from a requesting client, comprising:

storage means storing an address pointing to said service;

communications means for establishing a communications link with the client;

request-receiving means coupled to the communications means for receiving a

request for access to said service from the client; and

for providing access to said service to the client.

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43. A computer-readable storage medium storing program code for causing a computer to perform the steps of:

storing an address pointing to said service;
establishing a communications link with the client;
receiving a request for access to said service from the client; and

providing access to said service to the client.

A method capable of providing a service and a version-synchronized workspace element from a requesting client, comprising the steps of:

storing an address pointing to said service;

establishing a communications link with the client;

receiving a request for access to said service from the client; and

providing access to said service to the client.

A system capable of providing a service and a version-synchronized workspace element from a requesting client, comprising:

a storage/medium storing an address pointing to said workspace element;

a communications interface for establishing a communications link with the

client;

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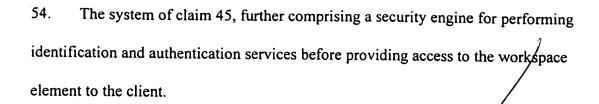
a request-servicing engine coupled to the communications interface for receiving

a request for access to said workspace element from the client; and

means coupled to the storage medium and the client interface for providing access

to said workspace element to the client.

- 46. The system of claim 45, wherein the storage medium further stores an address pointing to the service.
- 5 47. The system of claim 45, further comprising a synchronization-start module for initiating the communications interface to establish a communications link.
 - 48. The system of claim 45, wherein the service is located on a remote computer.
- 10 49. The system of claim 45, wherein the system includes the service.
 - 50. The system of claim 45, wherein the service is located on the client.
 - 51. The system of claim 50, wherein the client is protected by a firewall.
 - 52. The system of claim 51, wherein the client further comprises a synchronization-start module for initiating the communications interface to establish a communications link.
- 20 53. The system of claim 51, further comprising a key to enable access through the firewall.



- 5 55. The system of claim 45, wherein the request-servicing engine receives a request from a remote client.
 - 56. The system of claim 55, wherein the remote client receives the request from a user.
 - 57. The system of claim 45, wherein the access-providing means delivers an applet which controls the service to the client.
 - 58. The system of claim 57, further comprising an applet host engine.
 - 59. The system of claim 45, further comprising synchronization means for synchronizing the workspace element.
- 60. The system of claim 59, wherein the workspace element includes version information.
 - 61. The system of claim 59, further comprising

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a synchronization agent for examining a system workspace element and generating system results; and

a general-synchronization module for examining a workspace element on the client, for generating client results, for comparing the client results and the system results, and for performing a responsive synchronization response.

62. The system of claim 61, wherein the responsive synchronization response includes generating a preferred version.

10 63. The system of claim 45, wherein the service uses the workspace element.

A system capable of providing a service and a version-synchronized workspace element from a requesting client, comprising:

storage means storing an address pointing to said workspace element; communications means for establishing a communications link with the client; request-servicing means coupled to the communications means for receiving a

request for access to said workspace element from the client; and

access-providing means coupled to the storage means and the request-servicing means for providing access to said workspace element to the client.

68. A computer-readable storage medium storing program code for causing the computer to perform the steps of:

storing an address pointing to said workspace element;

establishing a communications link with the client;
receiving a request for access to said workspace element from the client; and
providing access to said workspace element to the client.

- 5 66. A method capable of providing a service and a version-synchronized workspace element from a requesting client, comprising the steps of:

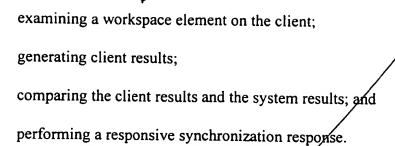
 storing an address pointing to said workspace element;

 establishing a communications link with the client;

 receiving a request for access to said workspace element from the client; and

 providing access to said workspace element to the client.
 - 67. The method of claim 66, further comprising the step of storing an address pointing to the service.
- 15 68. The method of claim 66, wherein the service is located on a remote computer.
 - 69. The method of claim 66, wherein the service is located on the client.
 - 70. The method of claim 69, wherein the client is protected by a firewall.
 - 71. The method of claim 69, further comprising the step of initiating establishing a communications/link from the client.

- 72. The method of claim 69, further comprising the step of using a key to enable access through the firewall.
- 73. The method of claim 66, further comprising the step of performing identification and authentication services before providing access to the workspace element.
 - 74. The method of claim 66, further comprising the step of receiving a request from a remote client.
- 75. The method of claim 74, further comprising the step of receiving the request from a user.
 - 76. The method of claim 66, further comprising the step of delivering an applet which controls the service to the client.
 - 77. The method of claim 66, further comprising the step of synchronizing the workspace element.
- 78. The method of claim 77, wherein the workspace element includes version information.
 - 79. The method of claim 77, further comprising the steps of examining a system workspace element and generating system results; and



- 80. The method of claim 79, further comprising step of generating a preferred version.
- 81. The method of claim 66, wherein the service uses the workspace element.
- 10 82. The system of claim 1 further comprising a user interface coupled to the applet engine and enabling a user to request access to the server workspace element.